

'Title: US-10-031-496D-20

RESULT 1

US-10-031-496D-20

; Sequence 20, Application US/10031496D

; GENERAL INFORMATION:

; APPLICANT: National Renewable Energy Laboratory

; TITLE OF INVENTION: Cellobiohydrolase I Gene and Improved Variants

; FILE REFERENCE: NREL 99-45

; CURRENT APPLICATION NUMBER: US/10/031,496D

; CURRENT FILING DATE: 2002-01-14

; NUMBER OF SEQ ID NOS: 96

; SOFTWARE: PatentIn version 3.3

; SEQ ID NO 20

; LENGTH: 26

; TYPE: DNA

; ORGANISM: Artificial

; FEATURE:

; OTHER INFORMATION: Primer for PCR

US-10-031-496D-20

Query Match 100.0%; Score 26; DB 7; Length 26;

Best Local Similarity 100.0%; Pred. No. 0.069;

Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCTGTCTGGACCCTGCCGCCTACGCG 26

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Db 1 GCTGTCTGGACCCTGCCGCCTACGCG 26

RESULT 2

US-10-031-496D-21/c

; Sequence 21, Application US/10031496D

; GENERAL INFORMATION:

; APPLICANT: National Renewable Energy Laboratory

; TITLE OF INVENTION: Cellobiohydrolase I Gene and Improved Variants

; FILE REFERENCE: NREL 99-45

; CURRENT APPLICATION NUMBER: US/10/031,496D

; CURRENT FILING DATE: 2002-01-14

; NUMBER OF SEQ ID NOS: 96

; SOFTWARE: PatentIn version 3.3

; SEQ ID NO 21

; LENGTH: 26

; TYPE: DNA

; ORGANISM: Artificial

; FEATURE:

; OTHER INFORMATION: Primer for PCR

US-10-031-496D-21

Query Match 100.0%; Score 26; DB 7; Length 26;

Best Local Similarity 100.0%; Pred. No. 0.069;

Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCTGTCTGGACCCTGCCGCCTACGCG 26

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Db 26 GCTGTCTGGACCCTGCCGCCTACGCG 1

'Title' US-10-031-496D-22

RESULT 1

AR030398

LOCUS AR030398 1453 bp DNA linear PAT 29-SEP-1999
DEFINITION Sequence 9 from patent US 5861271.
ACCESSION AR030398
VERSION AR030398.1 GI:5943612
KEYWORDS .
SOURCE Unknown.
ORGANISM Unknown.
Unclassified.
REFERENCE 1 (bases 1 to 1453)
AUTHORS Fowler,T., Clarkson,K.A., Ward,M., Collier,K.D. and Larenas,E.
TITLE Cellulase enzymes and systems for their expressions
JOURNAL Patent: US 5861271-A 9 19-JAN-1999;
FEATURES Location/Qualifiers
source 1. .1453
/organism="unknown"
/mol_type="unassigned DNA"

ORIGIN

Query Match 100.0%; Score 24; DB 6; Length 1453;
Best Local Similarity 100.0%; Pred. No. 1.1;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCTCTCCATTGGCTTTGTCACCC 24
|||||
Db 269 GCCTCTCCATTGGCTTTGTCACCC 292

RESULT 4

AR088330

LOCUS AR088330 1820 bp DNA linear PAT 07-SEP-2000
DEFINITION Sequence 17 from patent US 5989870.
ACCESSION AR088330
VERSION AR088330.1 GI:10015093
KEYWORDS .
SOURCE Unknown.
ORGANISM Unknown.
Unclassified.
REFERENCE 1 (bases 1 to 1820)
AUTHORS Nakari,T.Hannele., Onnela,M.-L., Ilmen,M.Hannele. and Penttila,M.Elisa.
TITLE Method for cloning active promoters
JOURNAL Patent: US 5989870-A 17 23-NOV-1999;
FEATURES Location/Qualifiers
source 1. .1820
/organism="unknown"
/mol_type="unassigned DNA"

ORIGIN

Query Match 100.0%; Score 24; DB 6; Length 1820;
Best Local Similarity 100.0%; Pred. No. 1.1;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCTCTCCATTGGCTTTGTCACCC 24
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Db 336 GCCTCTCCATTGGCTTTGTCACCC 359

RESULT 5

E00389

LOCUS E00389 2220 bp DNA linear PAT 29-SEP-1997
DEFINITION DNA coding for cellobiohydrolase I.
ACCESSION E00389
VERSION E00389.1 GI:2168674

"KEYWORDS JP 1985149387-A/1.
 SOURCE Hypocrea jecorina
 ORGANISM Hypocrea jecorina
 Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
 Hypocreomycetidae; Hypocreales; Hypocreaceae; Hypocrea.
 REFERENCE 1 (bases 1 to 2220)
 AUTHORS Shiyaron,P.S., Deibitsudo,H.G., Maikeru,A.I., Jiyaneru,B.A.,
 Shiyaarii,I.U., Maasa,B.R. and Bitsukii,S.
 TITLE GENE FOR ENCODING BACTERIAL CELLULASE
 JOURNAL Patent: JP 1985149387-A 1 06-AUG-1985;
 CETUS CORP
 COMMENT OS Trichoderma reesei
 PN JP 1985149387-A/1
 PD 06-AUG-1985
 PF 31-AUG-1984 JP 1984180893
 PR 31-AUG-1983 US 83 528216, 16-JUL-1984 US 84 630974 PI
 SHIYARON PEIN SHIYUUMEIKAA, DEIBITSUDO HAROO GERUFUANDO, PI
 MAIKERU ARAN INISU, JIYANERU BAN AASUDERU, SHIYAARII II UOKU, PI
 MAASA BEIRII RADONAA, BITSUKII SHIYUUEIKAATO
 PC C12N15/00,C12N9/42,(C12N15/00,C12R1:885),(C12N9/42,C12R1:865);
 CC strandedness: Double;
 CC topology: Linear;
 CC hypothetical: No;
 CC anti-sense: No;
 CC *source: cell_line=L27;
 FH Key Location/Qualifiers
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 /standard_name='CBH I'
 FT mat_peptide join(210..670,738..1434,1498..1878) FT
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 FT /product='cellobiohydrolase I' FT
 /number=1
 FT intron 672..737
 FT /number=1
 FT exon 738..1434
 FT /product='cellobiohydrolase I' FT
 /number=2
 FT intron 1435..1497
 FT /number=2
 FT exon 1498..1881
 FT /product='cellobiohydrolase I' FT
 /number=3
 FT sig_peptide 210..260
 FT mat_peptide join(261..671,738..1434,1498..1878) FT
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 /organism="Hypocrea jecorina"
 /mol_type="genomic DNA"
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ORIGIN

Query Match 100.0%; Score 24; DB 6; Length 2220;
 Best Local Similarity 100.0%; Pred. No. 1.1;
 Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCTCTCCATTGGCTTTGTCACCC 24
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 Db 529 GCCTCTCCATTGGCTTTGTCACCC 552

RESULT 7

I04222
 LOCUS I04222 2221 bp DNA linear PAT 02-DEC-1994
 DEFINITION Sequence 1 from Patent EP 0137280.

"ACCESSION I04222
 VERSION I04222.1 GI:591840
 KEYWORDS .
 SOURCE Unknown.
 ORGANISM Unknown.
 Unclassified.
 REFERENCE 1 (bases 1 to 2221)
 AUTHORS Shoemaker,S.P., Gelfand,D.H., Innis,M.A., Kwok,S.Y., Ladner,M.B.
 and Schweickart,V.
 TITLE Recombinant fungal cellobiohydrolases
 JOURNAL Patent: EP 0137280-A1 1 17-APR-1985;
 FEATURES Location/Qualifiers
 source 1. .2221
 /organism="unknown"
 /mol_type="unassigned DNA"
 ORIGIN

Query Match 100.0%; Score 24; DB 6; Length 2221;
 Best Local Similarity 100.0%; Pred. No. 1.1;
 Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCTCTCCATTGGCTTTGTCACCC 24
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 Db 529 GCCTCTCCATTGGCTTTGTCACCC 552

RESULT 9

TKCBH1A
 LOCUS TKCBH1A 3297 bp DNA linear PLN 08-MAR-2000
 DEFINITION T.koningii cbh1 gene for 1,4-beta-D-glucan-cellobiohydrolase.
 ACCESSION X69976
 VERSION X69976.1 GI:457422
 KEYWORDS 1,4-beta-D-glucan-cellobiohydrolase; cellobiohydrolase; cellulase;
 cellulose 1,4-beta cellobiosidase.
 SOURCE Hypocrea koningii (anamorph: Trichoderma koningii)
 ORGANISM Hypocrea koningii
 Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
 Hypocreomycetidae; Hypocreales; Hypocreaceae; Hypocrea.
 REFERENCE 1 (bases 1 to 3297)
 AUTHORS Wey,T.T., Hseu,T.H. and Huang,L.
 TITLE Molecular cloning and sequence analysis of the cellobiohydrolase I
 gene from Trichoderma koningii G-39
 JOURNAL Curr. Microbiol. 28 (1), 31-39 (1994)
 MEDLINE 94100788
 PUBMED 7764306
 REFERENCE 2 (bases 1 to 3297)
 AUTHORS Hseu,T.H.
 TITLE Direct Submission
 JOURNAL Submitted (12-JAN-1993) T.H. Hseu, Inst. of Life Science, National
 Tsing Hua University, 101 Sec. 2 Kuang Fu Road, Hsinchu 30043, ROC,
 TAIWAN
 FEATURES Location/Qualifiers
 source 1. .3297
 /organism="Hypocrea koningii"
 /mol_type="genomic DNA"
 /strain="G-39"
 /db_xref="taxon:97093"
 TATA_signal 401. .408
 gene 471. .2489
 /gene="cbh1"
 mRNA join(471. .992,1061. .1757,1821. .2489)
 /gene="cbh1"
 exon 471. .992
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 /number=1
 CDS join(532. .992,1061. .1757,1821. .2204)

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    /db_xref="GI:457423"
    /db_xref="GOA:P00725"
    /db_xref="Swiss-Prot:P00725"
    /translation="MYRKLAVISAFLATARAQSACTLQSETHPPLTWQKCSSGGTCTQ
QTGSVVIDANWRWTHATNSSTNCYDGNTWSSTLCPDNETCAKNCCLDGAAYASTYGV
TSGNSLSIGFVTQSAQKNVGARLYLMASDTTYQEFTLLGNEFSFDVDVSQLPCGLNGA
LYFVSMADAGGVSKYPTNTAGAKYGTGYCDSQCPRDLKFINGQANVEGWEPSSNNANT
GIGGHGSCCSEMDIWEANSISEALTPHPCTTVGQEICEGDGCGGTYSNRYGGTCDDP
GCDWNPYRLGNTSFYGPSSFTLDTTKKLTVVVTQFETSGAINRYVQNGVTFQQPNAE
LGSYSGNELNDDYCTAEAEFGSSFSDDKGGLTQFKKATSGGMVLVMSLWDDYYANML
WLDSTYPTNETSSTPGAVRGSCSTSSGVPAQVESQSPNAKVTFSTNFKFGPIGSTGNPS
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                /gene="cbh1"
mat_peptide    join(583. .992,1061. .1757,1821. .2201)
                /gene="cbh1"
                /product="cellulose 1,4-beta-cellobiosidase"
                /EC_number="3.2.1.91"
intron         993. .1060
                /gene="cbh1"
                /number=1
exon           1061. .1757
                /gene="cbh1"
                /number=2
intron         1758. .1820
                /gene="cbh1"
                /number=2
exon           1821. .2489
                /gene="cbh1"
                /number=3

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ORIGIN

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Query Match          100.0%;  Score 24;  DB 8;  Length 3297;
Best Local Similarity 100.0%;  Pred. No. 1.2;
Matches 24;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

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Qy      1 GCCTCTCCATTGGCTTTGTCACCC 24
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Db      851 GCCTCTCCATTGGCTTTGTCACCC 874

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RESULT 2
AAQ91279
ID      AAQ91279 standard; DNA; 1453 BP.
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AC      AAQ91279;
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DT      25-MAR-2003 (revised)
DT      13-DEC-1995 (first entry)
XX
DE      Exo-cellobiohydrolase CBHI catalytic core gene fragment.
XX
KW      Cellulase; catalytic core; enzyme; ss.
XX
OS      Trichoderma longibrachiatum.
XX
FH      Key          Location/Qualifiers
FT      exon        1. .410
FT          /*tag= a
FT      exon        478. .1174

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FT      /*tag=  b
FT exon      1238. .1453
FT      /*tag=  c
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PN      WO9516782-A1.
XX
PD      22-JUN-1995.
XX
PF      19-DEC-1994;    94WO-US014163.
XX
PR      17-DEC-1993;    93US-00169948.
XX
PA      (GEMV ) GENENCOR INT INC.
XX
PI      Fowler T,  Clarkson KA,  Ward M,  Collier KD,  Larenas E;
XX
DR      WPI; 1995-231574/30.
DR      P-PSDB; AAR77259.
XX
PT      Pure, truncated fungal cellulase protein from Trichoderma - useful to
PT      reduce or eliminate dye, colourant or pigment back-staining or
PT      redeposition in stone-washing or bio-polishing.
XX
PS      Claim 21; Page 41-43; 105pp; English.
XX
CC      A DNA gene fragment (AAQ91279) derived from Trichoderma which encodes for
CC      the CBHI catalytic core protein is claimed. The encoded protein
CC      (AAR77259) is capable of exhibiting exoglucanase activity. Genes for CBHI
CC      and CBHII have been isolated from T. longibrachiatum and the protein
CC      domain structure has been confirmed (Shoemaker, S. et al. 1983,
CC      Bio/Technology, 1, 691-696; Teeri, T. et al. 1983, Bio/technology 1, 696-
CC      699 and Teeri, T. et al., 1987, Gene, 51, 43-52). (Updated on 25-MAR-2003
CC      to correct PN field.)
XX
SQ      Sequence 1453 BP; 322 A; 448 C; 388 G; 295 T; 0 U; 0 Other;

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Query Match      100.0%; Score 24; DB 2; Length 1453;
Best Local Similarity 100.0%; Pred. No. 0.57;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 GCCTCTCCATTGGCTTTGTCACCC 24
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Db      269 GCCTCTCCATTGGCTTTGTCACCC 292

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RESULT 1

US-08-169-948B-9

; Sequence 9, Application US/08169948B

; Patent No. 5861271

; GENERAL INFORMATION:

; APPLICANT: Fowler, Timothy

; APPLICANT: Ward, Michael

; APPLICANT: Clarkson, Kathleen

; APPLICANT: Collier, Katherine

; APPLICANT: Larenas, Edmund

; TITLE OF INVENTION: No. 5861271el Cellulase Enzymes and Systems

; TITLE OF INVENTION: For Their Expression

; NUMBER OF SEQUENCES: 48

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Genencor International

; STREET: 180 Kimball Way

; CITY: South San Francisco

; STATE: CA

; COUNTRY: USA

; ZIP: 94080

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/169,948B
; FILING DATE: DEC 17 1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Horn, Margaret A.
; REGISTRATION NUMBER: 33,401
; REFERENCE/DOCKET NUMBER: GC226
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 742-7536
; TELEFAX: (415) 742-7217
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1453 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: join(1..410, 478..1174, 1238..1453)
US-08-169-948B-9

Query Match 100.0%; Score 24; DB 2; Length 1453;
Best Local Similarity 100.0%; Pred. No. 0.058;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCTCTCCATTGGCTTTGTCACCC 24
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Db 269 GCCTCTCCATTGGCTTTGTCACCC 292

RESULT 2

US-08-448-873-9

; Sequence 9, Application US/08448873
; Patent No. 5874276
; GENERAL INFORMATION:
; APPLICANT: Fowler, Timothy
; APPLICANT: Ward, Michael
; APPLICANT: Clarkson, Kathleen
; APPLICANT: Collier, Katherine A.
; APPLICANT: Larenas, Edmund
; TITLE OF INVENTION: No. 5874276el Cellulase Enzymes and Systems
; TITLE OF INVENTION: For Their Expressions
; NUMBER OF SEQUENCES: 48
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Genencor International
; STREET: 180 Kimball Way
; CITY: South San Francisco
; STATE: CA
; COUNTRY: USA
; ZIP: 94080
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/448,873
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/169,948
; FILING DATE: 17-DEC-1993
; ATTORNEY/AGENT INFORMATION:

; NAME: Stone, Christopher L.
; REGISTRATION NUMBER: 35,696
; REFERENCE/DOCKET NUMBER: GC226D14
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 742-7555
; TELEFAX: (415) 742-7217
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1453 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: join(1..410, 478..1174, 1238..1453)
US-08-448-873-9

Query Match 100.0%; Score 24; DB 2; Length 1453;
Best Local Similarity 100.0%; Pred. No. 0.058;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCTCTCCATTGGCTTTGTCACCC 24
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Db 269 GCCTCTCCATTGGCTTTGTCACCC 292

RESULT 3

US-08-382-452D-9

; Sequence 9, Application US/08382452D
; Patent No. 6268196
; GENERAL INFORMATION:
; APPLICANT: Fowler, Timothy
; APPLICANT: Clarkson, Kathleen A.
; APPLICANT: Ward, Michael
; APPLICANT: Collier, Katherine D.
; APPLICANT: Larenas, Edmund A.
; TITLE OF INVENTION: NOVEL CELLULOSE ENZYMES AND SYSTEMS
; TITLE OF INVENTION: FOR THEIR EXPRESSION
; NUMBER OF SEQUENCES: 43
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Genencor International
; STREET: 925 Page Mill Road
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94080
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/382,452D
; FILING DATE: February 1, 1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Christopher L. Stone
; REGISTRATION NUMBER: 36,696
; REFERENCE/DOCKET NUMBER: GC226-2
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 742-7555
; TELEFAX: (415) 742-7217
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1453 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single

; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: join(1..410, 478..1174, 1238..1453)
US-08-382-452D-9

Query Match 100.0%; Score 24; DB 3; Length 1453;
Best Local Similarity 100.0%; Pred. No. 0.058;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCTCTCCATTGGCTTTGTCACCC 24
|||||
Db 269 GCCTCTCCATTGGCTTTGTCACCC 292

RESULT 4

US-09-916-494A-9

; Sequence 9, Application US/09916494A
; Patent No. 6620605
; GENERAL INFORMATION:
; APPLICANT: Fowler, Timothy
; APPLICANT: Clarkson, Kathleen A.
; APPLICANT: Ward, Michael
; APPLICANT: Collier, Katherine D.
; APPLICANT: Larenas, Edmund
; TITLE OF INVENTION: Method and Compositions for Treating
; TITLE OF INVENTION: Cellulose Containing Fabrics Using Truncated Cellulase
; TITLE OF INVENTION: Enzyme Compositions
; FILE REFERENCE: GC226-C4
; CURRENT APPLICATION NUMBER: US/09/916,494A
; CURRENT FILING DATE: 2000-06-14
; PRIOR APPLICATION NUMBER: US 08/382,452
; PRIOR FILING DATE: 1995-02-01
; PRIOR APPLICATION NUMBER: US 08/169,948
; PRIOR FILING DATE: 1993-12-17
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 1453
; TYPE: DNA
; ORGANISM: Trichoderma longibrachiatum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(410)
; NAME/KEY: CDS
; LOCATION: (478)...(1174)
; NAME/KEY: CDS
; LOCATION: (1238)...(1453)

US-09-916-494A-9

Query Match 100.0%; Score 24; DB 4; Length 1453;
Best Local Similarity 100.0%; Pred. No. 0.058;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCTCTCCATTGGCTTTGTCACCC 24
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Db 269 GCCTCTCCATTGGCTTTGTCACCC 292

RESULT 5

US-08-389-564B-17

; Sequence 17, Application US/08389564B
; Patent No. 5989870
; GENERAL INFORMATION:
; APPLICANT: Nakari, Tiina H.
; APPLICANT: Onnela, Maija-Leena

; APPLICANT: Ilm n, Marja H.
; APPLICANT: Penttil , Merja E.
; TITLE OF INVENTION: A METHOD FOR CLONING ACTIVE PROMOTERS
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein & Fox P.L.L.C.
; STREET: 1100 New York Avenue, Suite 600
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/389,564B
; FILING DATE: 16-FEB-1995
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/932,485
; FILING DATE: 19-AUG-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/496,155
; FILING DATE: 19-MAR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/044,077
; FILING DATE: 29-APR-1987
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 86 10600
; FILING DATE: 30-APR-1986
; ATTORNEY/AGENT INFORMATION:
; NAME: REED, GRANT E.
; REGISTRATION NUMBER: 41,264
; REFERENCE/DOCKET NUMBER: 1716.008000G
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 17:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1820 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-389-564B-17

Query Match 100.0%; Score 24; DB 2; Length 1820;
Best Local Similarity 100.0%; Pred. No. 0.061;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCTCTCCATTGGCTTTGTCACCC 24
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Db 336 GCCTCTCCATTGGCTTTGTCACCC 359

RESULT 6

US-08-466-047B-17

; Sequence 17, Application US/08466047B
; Patent No. 6011147

; GENERAL INFORMATION:

; APPLICANT: Nakari, Tiina H.
; APPLICANT: Onnela, Maija-Leena
; APPLICANT: Ilm n, Marja H.
; APPLICANT: Nevalainen, Kaisu Milja Helena
; APPLICANT: Penttil , Merja E.
; TITLE OF INVENTION: Fungal Promoters Active In The Presence

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; TITLE OF INVENTION: Of Glucose
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein & Fox P.L.L.C.
; STREET: 1100 New York Avenue, Suite 600
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/466,047B
; FILING DATE: 06-JUN-1995
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/389,564
; FILING DATE: 16-FEB-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/932,564
; FILING DATE: 19-AUG-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/496,155
; FILING DATE: 19-MAR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/044,077
; FILING DATE: 29-APR-1987
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 86 10600
; FILING DATE: 30-APR-1986
; ATTORNEY/AGENT INFORMATION:
; NAME: REED, GRANT E.
; REGISTRATION NUMBER: 41,264
; REFERENCE/DOCKET NUMBER: 1716.008000H
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 17:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1820 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-466-047B-17

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Query Match          100.0%; Score 24; DB 3; Length 1820;
Best Local Similarity 100.0%; Pred. No. 0.061;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 GCCTCTCCATTGGCTTTGTCACCC 24
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Db     336 GCCTCTCCATTGGCTTTGTCACCC 359

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Title: US-10-031-496D-85

RESULT 1

AR030398

LOCUS AR030398 1453 bp DNA linear PAT 29-SEP-1999

DEFINITION Sequence 9 from patent US 5861271.

ACCESSION AR030398

VERSION AR030398.1 GI:5943612

KEYWORDS .

SOURCE Unknown.

ORGANISM Unknown.

Unclassified.

REFERENCE 1 (bases 1 to 1453)

AUTHORS Fowler,T., Clarkson,K.A., Ward,M., Collier,K.D. and Larenas,E.

TITLE Cellulase enzymes and systems for their expressions

JOURNAL Patent: US 5861271-A 9 19-JAN-1999;

FEATURES Location/Qualifiers

source 1. .1453

/organism="unknown"

/mol_type="unassigned DNA"

ORIGIN

Query Match 100.0%; Score 35; DB 6; Length 1453;

Best Local Similarity 100.0%; Pred. No. 0.0073;

Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 35

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Db 1332 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 1366

RESULT 2

AR399459

LOCUS AR399459 1453 bp DNA linear PAT 18-DEC-2003

DEFINITION Sequence 9 from patent US 6620605.

ACCESSION AR399459

VERSION AR399459.1 GI:40141435

KEYWORDS .

SOURCE Unknown.

ORGANISM Unknown.

Unclassified.

REFERENCE 1 (bases 1 to 1453)

AUTHORS Fowler,T., Clarkson,K.A., Ward,M., Collier,K.D. and Larenas,E.

TITLE Method and compositions for treating cellulose containing fabrics
using truncated cellulase enzyme compositions

JOURNAL Patent: US 6620605-A 9 16-SEP-2003;

FEATURES Location/Qualifiers

source 1. .1453

/organism="unknown"

/mol_type="genomic DNA"

ORIGIN

Query Match 100.0%; Score 35; DB 6; Length 1453;

Best Local Similarity 100.0%; Pred. No. 0.0073;

Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 35

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Db 1332 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 1366

RESULT 3

AY368686

LOCUS AY368686 1746 bp mRNA linear PLN 17-SEP-2003

DEFINITION Trichoderma viride strain AS 3.3711 cellobiohydrolase I (cbhI)

mRNA, complete cds.

ACCESSION AY368686

VERSION AY368686.1 GI:34582631
 KEYWORDS .
 SOURCE Trichoderma viride
 ORGANISM Trichoderma viride
 Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
 Hypocreomycetidae; Hypocreales; mitosporic Hypocreales;
 Trichoderma.
 REFERENCE 1 (bases 1 to 1746)
 AUTHORS Liu,B.D., Yang,Q., Zhou,Q. and Song,J.Z.
 TITLE Cloning and Sequence Analysis of the cellobiohydrolase I (cbh I)
 Gene from Trichoderma viride AS 3.3711
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 1746)
 AUTHORS Liu,B.D., Yang,Q., Zhou,Q. and Song,J.Z.
 TITLE Direct Submission
 JOURNAL Submitted (16-AUG-2003) Department of Life Science and Engineering,
 Harbin Institute of Technology, Dong Da Zhi, Harbin, Heilongjiang
 150001, P. R. China
 FEATURES Location/Qualifiers
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 /strain="AS 3.3711"
 /db_xref="taxon:5547"
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 /gene="cbhI"
 CDS 44. .1588
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 /db_xref="GI:34582632"
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 GCDWDPYRLGNTSFYGPSSFTLDTTKKLTVVVTQFETSGAINRYVQNGVTFQQPNAE
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ORIGIN

Query Match 100.0%; Score 35; DB 8; Length 1746;
 Best Local Similarity 100.0%; Pred. No. 0.0071;
 Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CCGGTGTCCTGCTCAGGTCGAATCTCAGTCTCCC 35
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 Db 1296 CCGGTGTCCTGCTCAGGTCGAATCTCAGTCTCCC 1330

RESULT 4

AR088330
 LOCUS AR088330 1820 bp DNA linear PAT 07-SEP-2000
 DEFINITION Sequence 17 from patent US 5989870.
 ACCESSION AR088330
 VERSION AR088330.1 GI:10015093
 KEYWORDS .
 SOURCE Unknown.
 ORGANISM Unknown.
 Unclassified.
 REFERENCE 1 (bases 1 to 1820)
 AUTHORS Nakari,T.Hannele., Onnela,M.-L., Ilmen,M.Hannele. and
 Penttila,M.Elisa.
 TITLE Method for cloning active promoters

JOURNAL Patent: US 5989870-A 17 23-NOV-1999;
FEATURES Location/Qualifiers
source 1. .1820
/organism="unknown"
/mol_type="unassigned DNA"

ORIGIN

Query Match 100.0%; Score 35; DB 6; Length 1820;
Best Local Similarity 100.0%; Pred. No. 0.0071;
Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 35
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Db 1399 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 1433

RESULT 5

E00389

LOCUS E00389 2220 bp DNA linear PAT 29-SEP-1997

DEFINITION DNA coding for cellobiohydrolase I.

ACCESSION E00389

VERSION E00389.1 GI:2168674

KEYWORDS JP 1985149387-A/1.

SOURCE Hypocrea jecorina

ORGANISM Hypocrea jecorina

Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
Hypocreomycetidae; Hypocreales; Hypocreaceae; Hypocrea.

REFERENCE 1 (bases 1 to 2220)

AUTHORS Shiyaron,P.S., Deibitsudo,H.G., Maikeru,A.I., Jiyaneru,B.A.,
Shiyaarii,I.U., Maasa,B.R. and Bitsukii,S.

TITLE GENE FOR ENCODING BACTERIAL CELLULASE

JOURNAL Patent: JP 1985149387-A 1 06-AUG-1985;

CETUS CORP

COMMENT OS Trichoderma reesei

PN JP 1985149387-A/1

PD 06-AUG-1985

PF 31-AUG-1984 JP 1984180893

PR 31-AUG-1983 US 83 528216, 16-JUL-1984 US 84 630974 PI

SHIYARON PEIN SHIYUUMEIKAA, DEIBITSUDO HAROO GERUFUANDO, PI

MAIKERU ARAN INISU, JIYANERU BAN AASUDERU, SHIYAARII II UOKU, PI

MAASA BEIRII RADONAA, BITSUKII SHIYUUEIKAATO

PC C12N15/00,C12N9/42,(C12N15/00,C12R1:885),(C12N9/42,C12R1:865);

CC strandedness: Double;

CC topology: Linear;

CC hypothetical: No;

CC anti-sense: No;

CC *source: cell_line=L27;

FH Key Location/Qualifiers

FH

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/product='cellobiohydrolase I' FT

/standard_name='CBH I'

FT mat_peptide join(210..670,738..1434,1498..1878) FT

/product='cellobiohydrolase I' FT exon

210..671

FT /product='cellobiohydrolase I' FT

/number=1

FT intron 672..737

FT /number=1

FT exon 738..1434

FT /product='cellobiohydrolase I' FT

/number=2

FT intron 1435..1497

FT /number=2

FT exon 1498..1881

FT /product='cellobiohydrolase I' FT

/number=3

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ORIGIN

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Best Local Similarity 100.0%; Pred. No. 0.0068;
Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 35
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Db 1591 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 1625

RESULT 9

TKCBH1A
LOCUS TKCBH1A 3297 bp DNA linear PLN 08-MAR-2000
DEFINITION T.koningii cbh1 gene for 1,4-beta-D-glucan-cellobiohydrolase.
ACCESSION X69976
VERSION X69976.1 GI:457422
KEYWORDS 1,4-beta-D-glucan-cellobiohydrolase; cellobiohydrolase; cellulase;
cellulose 1,4-beta cellobiosidase.
SOURCE Hypocrea koningii (anamorph: Trichoderma koningii)
ORGANISM Hypocrea koningii
Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
Hypocreomycetidae; Hypocreales; Hypocreaceae; Hypocrea.
REFERENCE 1 (bases 1 to 3297)
AUTHORS Wey,T.T., Hseu,T.H. and Huang,L.
TITLE Molecular cloning and sequence analysis of the cellobiohydrolase I
gene from Trichoderma koningii G-39
JOURNAL Curr. Microbiol. 28 (1), 31-39 (1994)
MEDLINE 94100788
PUBMED 7764306
REFERENCE 2 (bases 1 to 3297)
AUTHORS Hseu,T.H.
TITLE Direct Submission
JOURNAL Submitted (12-JAN-1993) T.H. Hseu, Inst. of Life Science, National
Tsing Hua University, 101 Sec. 2 Kuang Fu Road, Hsinchu 30043, ROC,
TAIWAN

FEATURES
source Location/Qualifiers
1. .3297
/organism="Hypocrea koningii"
/mol_type="genomic DNA"
/strain="G-39"
/db_xref="taxon:97093"
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gene 471. .2489
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CDS join(532. .992,1061. .1757,1821. .2204)
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/protein_id="CAA49596.1"
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/db_xref="Swiss-Prot:P00725"
/translation="MYRKLAVISAFLATARAQSACTLQSETHPPLTWQKSSGGTCTQ"

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ORIGIN

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Best Local Similarity 100.0%; Pred. No. 0.0064;
Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1915 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 1949

RESULT 1

US-08-169-948B-9

; Sequence 9, Application US/08169948B

; Patent No. 5861271

; GENERAL INFORMATION:

; APPLICANT: Fowler, Timothy

; APPLICANT: Ward, Michael

; APPLICANT: Clarkson, Kathleen

; APPLICANT: Collier, Katherine

; APPLICANT: Larenas, Edmund

; TITLE OF INVENTION: No. 5861271el Cellulase Enzymes and Systems

; TITLE OF INVENTION: For Their Expression

; NUMBER OF SEQUENCES: 48

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Genencor International

; STREET: 180 Kimball Way

; CITY: South San Francisco

; STATE: CA

; COUNTRY: USA

; ZIP: 94080

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/169,948B

; FILING DATE: DEC 17 1993

; CLASSIFICATION: 435

; ATTORNEY/AGENT INFORMATION:

Query Match 100.0%; Score 35; DB 3; Length 1453;
Best Local Similarity 100.0%; Pred. No. 2.6e-05;
Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

RESULT 4

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; Sequence 9, Application US/09916494A
; Patent No. 6620605
; GENERAL INFORMATION:
; APPLICANT: Fowler, Timothy
; APPLICANT: Clarkson, Kathleen A.
; APPLICANT: Ward, Michael
; APPLICANT: Collier, Katherine D.
; APPLICANT: Larenas, Edmund
; TITLE OF INVENTION: Method and Compositions for Treating
; TITLE OF INVENTION: Cellulose Containing Fabrics Using Truncated Cellulase
; TITLE OF INVENTION: Enzyme Compositions
; FILE REFERENCE: GC226-C4
; CURRENT APPLICATION NUMBER: US/09/916,494A
; CURRENT FILING DATE: 2000-06-14
; PRIOR APPLICATION NUMBER: US 08/382,452
; PRIOR FILING DATE: 1995-02-01
; PRIOR APPLICATION NUMBER: US 08/169,948
; PRIOR FILING DATE: 1993-12-17
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 1453
; TYPE: DNA
; ORGANISM: Trichoderma longibrachiatum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(410)
; NAME/KEY: CDS
; LOCATION: (478)...(1174)
; NAME/KEY: CDS
; LOCATION: (1238)...(1453)
US-09-916-494A-9

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Qy 1 CCGGTGTCCTTGCTCAGGTCGAATCTCAGTCTCCC 35
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 Db 1332 CCGGTGTCCTTGCTCAGGTCGAATCTCAGTCTCCC 1366

RESULT 5

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; Sequence 17, Application US/08389564B
; Patent No. 5989870
; GENERAL INFORMATION:
; APPLICANT: Nakari, Tiina H.
; APPLICANT: Onnela, Maija-Leena
; APPLICANT: Ilm n, Marja H.
; APPLICANT: Penttil , Merja E.
; TITLE OF INVENTION: A METHOD FOR CLONING ACTIVE PROMOTERS
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein & Fox P.L.L.C.
; STREET: 1100 New York Avenue, Suite 600
```

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; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/389,564B
; FILING DATE: 16-FEB-1995
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/932,485
; FILING DATE: 19-AUG-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/496,155
; FILING DATE: 19-MAR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/044,077
; FILING DATE: 29-APR-1987
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 86 10600
; FILING DATE: 30-APR-1986
; ATTORNEY/AGENT INFORMATION:
; NAME: REED, GRANT E.
; REGISTRATION NUMBER: 41,264
; REFERENCE/DOCKET NUMBER: 1716.008000G
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 17:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1820 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-389-564B-17
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Best Local Similarity 100.0%; Pred. No. 2.6e-05;
Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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RESULT 6

US-08-466-047B-17

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; Sequence 17, Application US/08466047B
; Patent No. 6011147
; GENERAL INFORMATION:
; APPLICANT: Nakari, Tiina H.
; APPLICANT: Onnela, Maija-Leena
; APPLICANT: Ilm n, Marja H.
; APPLICANT: Nevalainen, Kaisu Milja Helena
; APPLICANT: Penttil , Merja E.
; TITLE OF INVENTION: Fungal Promoters Active In The Presence
; TITLE OF INVENTION: Of Glucose
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein & Fox P.L.L.C.
; STREET: 1100 New York Avenue, Suite 600
; CITY: Washington
; STATE: D.C.
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; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/466,047B
; FILING DATE: 06-JUN-1995
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/389,564
; FILING DATE: 16-FEB-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/932,564
; FILING DATE: 19-AUG-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/496,155
; FILING DATE: 19-MAR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/044,077
; FILING DATE: 29-APR-1987
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 86 10600
; FILING DATE: 30-APR-1986
; ATTORNEY/AGENT INFORMATION:
; NAME: REED, GRANT E.
; REGISTRATION NUMBER: 41,264
; REFERENCE/DOCKET NUMBER: 1716.008000H
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 17:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1820 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-466-047B-17

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Query Match          100.0%; Score 35; DB 3; Length 1820;
Best Local Similarity 100.0%; Pred. No. 2.6e-05;
Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 35
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Db     1399 CCGGTGTCCCTGCTCAGGTCGAATCTCAGTCTCCC 1433

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